STAFF REPORT

LOCALIZED HEALTH IMPACTS REPORT

Addendum 3 for Selected Projects With Location Changes Awarded Funding Through the Alternative and Renewable Fuel and Vehicle Technology Program Under Solicitation PON-13-606 – Electric Vehicle Charging Infrastructure

CALIFORNIA
ENERGY COMMISSION

Edmund G. Brown Jr., Governor

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ADDENDUM 3

The *Localized Health Impacts (LHI) Report for Selected Projects Awarded Funding Through the Alternative and Renewable Fuel and Vehicle Technology Program Under Solicitation PON-13-606* was posted April 11, 2014 (CEC-600-2014-002).[1] The assessment approach used in this addendum is as written in CEC-600-2014-002. Addendum 1 was posted June 19, 2014, (CEC-600-2014-002-AD)[2] and corrected both the quantity and type of electric charges for the Adopt a Charger project (Application #9). Addendum 2 was posted July 16, 2014 (CEC-600-2014-002-AD2).[3]

This addendum reports on and assesses the potential localized health impacts of site location changes for Bay Area Air Quality Management District (BAAQMD) project "Bay Area Corridor Charging Expansion Project" and the City of Coronado project "Coronado EV Tourism EVSE Deployment Project." The original site locations for electric vehicle charging infrastructure are listed in Table 1, along with the new replacement site locations.

Table 1: Site Location Changes

Project	Original Site Location	New Site Location
Bay Area Corridor Charging Expansion Project	Ohlone Village Shopping Center 1530 Washington Boulevard, Fremont, California 94539	Fry's Electronics 43800 Osgood Road, Fremont, California 94539
Coronado EV Tourism EVSE Deployment Project	Rotary Park Coronado Rotary Plaza, Coronado, California 92118	Coronado Golf Course 2000 Visalia Row, Coronado, California 92118

Source: Energy Commission staff analysis

The two replacement locations will result in new surroundings, as shown in Table 2. The surroundings are comparable with the original locations.

Table 2: Surroundings for the New Site Locations

New Address	Surroundings (within a 1-mile radius)
43800 Osgood Road, Fremont, California 94539	3 schools, 3 day-care facilities, and no health-care offices
2000 Visalia Row, Coronado, California 92118	5 schools, 4 day-care facilities, and 1 health-care office

Source: Energy Commission staff analysis

1 Brecht, Patrick, Jennifer Allen, Lindsee Tanimoto. 2014. *Localized Health Impacts Report*. California Energy Commission, Fuels and Transportation Division. Publication Number: CEC-600-2014-002.
2 Brecht, Patrick, Jennifer Allen, Lindsee Tanimoto. 2014. *Localized Health Impacts Report*. California Energy Commission, Fuels and Transportation Division. Publication Number: CEC-600-2014-002-AD.
3 Brecht, Patrick, Jennifer Allen, Lindsee Tanimoto. 2014. *Localized Health Impacts Report*. California Energy Commission, Fuels and Transportation Division. Publication Number: CEC-600-2011-002-AD2.

Demographic Data

Staff collected information on ethnicity, age, and income for the cities/communities where the projects would be located. The information identifies those communities with higher minority populations, lower incomes, and highly sensitive groups based on age. For this assessment, staff identifies sensitive populations as individuals younger than 5 years of age and older than 65 years of age. The demographic data for the proposed project sites are provided in Table 3.

Table 3: Demographic Data for Cities

	Below poverty line (2008 – 2012)	Ethnicity					Age		*Unemployment rate (August 2014)*
		Black (2010)	*American Indian (2010)*	*Asian and/or Pacific Islander (2010)*	*Hispanic (2010)*	*White (2010)*	*<5 years (2010)*	*>65 years (2010)*	
Coronado	**6.4**	**2.1**	**0.5**	**3.0**	**12.2**	**79.4**	**4.7**	**18.4**	**3.9**
Fremont	**5.8**	**3.3**	**0.5**	**50.6**	**14.8**	**26.5**	**7.1**	**10.2**	**4.3**

Sources: Unemployment information from the State of California, Employee Development Department (EDD) Labor Market Information Division: http://www.labormarketinfo.edd.ca.gov/CES/Labor_Force_Unemployment_Data_for_Cities_and_Census_Areas.html and Demographics information from the U.S. Department of Commerce, U.S. Census Bureau: http://quickfacts.census.gov/qfd/states/06/0616378.html

Petroleum Displaced

Staff collected information about estimated petroleum displacement, in equivalent gasoline gallons. The displacement results from electric vehicle miles traveled. Table 4 shows the amount of estimated gallons of gasoline displaced.

Table 4: Estimated Gasoline Gallons Displaced
Level 1 (L1), Level 2 (L2), Direct Current Fast Charger (DCFC)

Application Number	Applicant	Number and Type of Chargers	Vehicle Capacity (total number of vehicles that can charge at the same time)	Estimated Total Electric Vehicle Miles Per Year[4] (2015 vehicle population)	Estimated Total Gasoline Gallons Displaced[5] Per Year
Category I – Destination Charging, Corridor Charging, Workplace Charging With Public Access					
33	BAAQMD	12 L2 Destination 10 DCFC Corridor	12 for L2 minimum of 10 for DCFC	1,228,878	51,417
44	City of Coronado	10 L2 Destination	10	94,864	3,969

Source: Energy Commission staff analysis

4 Default is 365 days per year for Destination, Corridor, and Public Access Workplace in Category I, unless specific restrictions were identified. Default is 251 days per year in Category II. Default is 365 days per year in Category III.

5 23.9 miles per gallon for equivalent gasoline vehicle displaced

Location Analysis and Community Impacts

Based on staff's assessment of the proposed projects, it is expected that none of the surrounding communities would be disproportionately impacted by the implementation of the projects. While overall air quality depends on a number of factors, the Energy Commission expects that air quality will improve over time where the chargers are proposed as they support growing numbers of electric vehicles.

Location analysis and community impacts are based on comparing the project location demographics to that of California. The two projects, composed of 2 cities, have one minority environmental justice (EJ) indicator. The age EJ indicator exists in one of the proposed cities. The proposed projects are expected to have a net benefit by reducing emissions and leading to improved air quality. Although Table 5 indicates cities with EJ indicators, the projects will not result in elevated risks. The proposed stations will reduce emissions, exposure, and health risks at local levels, resulting in benefits.

Table 5: Cities With EJ Indicators
(Compared to the State of California)

Yellow highlighted areas indicate numbers that meet the definitions for EJ indicators.

	Below poverty line (2008 – 2012)	Ethnicity					Age		Unemployment rate (August 2014)
		Black (2010)	*American Indian (2010)*	*Asian and/or Pacific Islander (2010)*	*Hispanic (2010)*	*White (2010)*	*<5 years (2010)*	*>65 years (2010)*	
California	**15.3**	**6.6**	**1.7**	**14.1**	**38.4**	**39**	**6.5**	**12.5**	**7.4**
Coronado	**6.4**	**2.1**	**0.5**	**3.0**	**12.2**	**79.4**	**4.7**	**18.4**	**3.9**
Fremont	**5.8**	**3.3**	**0.5**	**50.6**	**14.8**	**26.5**	**7.1**	**10.2**	**4.3**

Sources: Unemployment information from the State of California, Employee Development Department (EDD) Labor Market Information Division: http://www.labormarketinfo.edd.ca.gov/CES/Labor_Force_Unemployment_Data_for_Cities_and_Census_Areas.html and Demographics information from the U.S. Department of Commerce, U.S. Census Bureau: http://quickfacts.census.gov/qfd/states/06/0616378.html

Summary

The proposed project would potentially result in up to two sites for electric vehicle charging. The sites will increase the widespread use of plug-in electric vehicles (PEVs). As more PEVs enter the market and begin to displace gasoline and diesel vehicles, tailpipe pollutants will decrease. The anticipated impacts to the cities where these projects would be located are positive in terms of cleaner air and anticipated greenhouse gas reductions. Of the two cities listed, the anticipated benefit from these projects for the people who live in these cities is highly likely, if not certain, to be positive.